

shows a fastening member having a pair of U-shaped openings **146**. A hook region or lip **148** of each opening can retain the encircling member in the opening.

**[0068]** FIGS. **5**, **11**, and **12** show cleats, such as prongs **150**, that may project from bottom surface region **112** of fastening member **70**. A cleat may be any downwardly projecting member to position and/or resist slippage of the fastening member on bone. A prong may be any cleat that tapers downwardly in a direction away from the body of the fastening member. The fastening member may have any suitable number of cleats, such as none, only one, at least a pair, or three or more. Each cleat may be formed integrally (e.g., as part of a one-piece fastening member), as in fastening member **70**, or may be formed as a separate piece (e.g., see Example 2). A majority of the cleat, by length measured orthogonal to bottom surface region **112**, may or may not be disposed in bone and/or soft tissue over bone after the fastening member is installed. The cleat may or may not have rotational symmetry and/or reflectional symmetry. The cleat may have a length by which the cleat projects from bottom surface region **112**, and a (maximum) width/diameter measured orthogonal to the length. The length may be greater than the width, about the same as the width, or less than the width.

**[0069]** FIG. **5** shows prongs **150** disposed under tabs **152** (interchangeably termed lateral protrusions) of fastening member **70**. Each tab **152** may be formed as a rounded and/or elongated corner of fastening member **70**, or may project from the body of the fastening member at any other suitable position, such as intermediate a pair of corners formed by the fastening member, among others.

**[0070]** FIGS. **11** and **12** show a pair of side views of fastening member **70**, taken orthogonally to each other, with sternum **52** illustrated schematically in phantom lines. In each case, bottom surface region **112** of fastening member **70** is elevated from the sternum by prongs **150**. Accordingly, the prongs may allow the fastening member to be used on a nonplanar surface, such as a convex bone surface as in FIG. **11**. Elevation of the fastening member above bone may offer substantial advantages to the surgeon, such as better access to encircling member **68** and/or fastening member **70** with tools (e.g., a tensioning tool, a crimping tool, a cutting tool, etc.), among others.

**[0071]** FIG. **11** shows prongs **150** having an asymmetrical profile when viewed parallel to compression axis **95**. Each prong **150** may define a prong axis **154** oriented obliquely to a plane **156** defined by bottom surface region **112**. An inner side **158** of the prong may be concave in profile and an outer side **160** of the prong may be less concave, linear, or convex in profile, among others. The asymmetrical profile depicted here may resist distraction of sternal fragments, and may facilitate compression of sternum **52** as encircling member **68** is tensioned.

**[0072]** FIG. **12** shows prongs **150** having a symmetrical profile when viewed parallel to spanning axis **118**. The profile of each prong may be concave, linear, or convex on both inner and outer sides **162**, **164**.

**[0073]** FIG. **13** shows a sectional view of fastening member **70** taken through passage **122** with encircling member **68** extending through the passage. Fastening member **70** may have an opposing pair of chamfers **166**, **168** formed at opposite ends of each passage **120** and **122** (also see FIGS. **4** and **5**, among others). Each of chamfers **166** and **168** may be defined by a portion of lateral side wall region **116** that is undercut (or shaped as if undercut) to form an overhang. Each

chamfer may slope inwardly, namely, toward a central plane **170** orthogonal to spanning axis **118**, as the chamfer extends away from top surface region **110** and toward bottom surface region **112**. Stated another way, the chamfers may slope convergently as each chamfer extends toward bottom surface region **112**.

**[0074]** Undercut chamfers **166** and **168** may provide substantial advantages over the absence of chamfers, and particularly over chamfers that slope in the opposite direction ("overcut chamfers"). During installation of a binding device, application of tension to the encircling member, with the encircling member in a looped configuration, can apply a torque to the fastening member that causes the fastening member to flip over to an upside-down orientation on bone. A surgeon can prevent this undesired reorientation of the fastening member by clamping the fastening member to bone before the encircling member is tensioned. Undercut chamfers may stabilize the correct, right-side-up orientation of the fastening member, such that tensioning the encircling member can be performed without clamping the fastening member to bone, thereby saving time and effort.

**[0075]** Fastening member **70** also may have a chamfer **172** formed by a side wall region of window **132**, at the opposite end of each channel **124**, **126** (see FIGS. **4** and **13**). Chamfer **172** may be an overcut chamfer that slopes at least in the same general direction as undercut chamfer **166** (e.g., parallel to the undercut chamfer), namely, toward central plane **170**. Chamfers **166** and **172** may cooperate to offer greater pivotal mobility to encircling member **68**, or a longitudinal piece cut therefrom. For example, encircling member may be cut in window **132**, indicated by an arrow at **174**, to form new ends **176**, **178**. Chamfers **166**, **172** allow end **176** to be pivoted upward, to permit the end to be manipulated further, such as removed from channel **126**. End **176** may be created by cutting at a site within the secured loop of the encircling member (e.g., to open the loop and remove the binding device) or outside the loop (e.g., to create piece **180** and stub **96** by cutting free end **78**; see FIG. **3**), among others.

**[0076]** FIGS. **4** and **5** show further aspects of crimp region **92**. Fastening member **70** may define at least one alignment aperture (e.g., a pair of alignment apertures **182**) that allows the jaws of a crimping tool to be guided to and operatively positioned against opposite contact sites **184** of crimp region **92**. (Each alignment aperture interchangeably may be termed a guide aperture.) Contact sites **184** may be arranged at respective spaced positions along compression axis **95** and may face away from each other. Each contact site may be provided, at least in part, by a projecting portion (e.g., a button) of a wall region of each alignment aperture **182**, as shown here, may be flush with flanking wall regions of aperture **182**, or may be recessed (e.g., see Example 5). In any event, the contact sites may be moved closer to each other and deformed when the contact sites are squeezed with the crimping tool and crimp region **92** is deformed (e.g., compare FIGS. **2** and **3**). Deforming the crimp region may secure both ends of an encircling-member loop to the fastening member at the same time. Alternatively, the ends of the loop may be secured/crimped serially by crimping a pair of crimp regions of the fastening member at different times (e.g., see Example 3 and U.S. Patent Application Publication No. 2010/0094294 A1, published Apr. 15, 2010, which is incorporated herein by reference).

**[0077]** Further aspects of binding devices that may be suitable are described elsewhere in the present disclosure, such as